WHAT IS CLAIMED IS:

1. A separating method for recycling foil-laminated material composed of a foil layer laminated with at least one permeable layer by forming alumina at interfaces, and the method comprising acts of:

soaking foil-laminated material in a stripping agent, wherein the stripping agent is an acid solution containing nitric acid to permeate the at least one permeable layer to dissolve alumina at interfaces to divide the foil-laminated material into a separated foil layer and at least one separated permeable layer;

cleaning the separated foil layer and the at least one separated permeable layer;

drying the separated foil layer and the at least one separated layer; and

classifying the separated foil layer, the at least one permeable layer for subsequent recycling processes.

2. The separating method as claimed in claim 1, wherein the separating method further comprises an act after soaking, wherein the act is:

draining the stripping agent from surfaces of the separated foil layer and the at least one permeable layer to remove most of stripping agent;

whereafter, the at least one permeable layer and the separated foil layer are cleaned with water and then applied with the act of drying.

3. The method as claimed in claim 1, wherein the separating method further comprises an act after cleaning, wherein the act is:

neutralizing the stripping agent with a basic solution;

whereafter, the separated foil layer and the at least one permeable are applied with the act of drying.

4. The method as claimed in claim 1, wherein a heating act is carried out at the same time as the soaking act to accelerate speed of dissolving the alumina.

5. The method as claimed in claim 1, wherein the at least one permeable layer is one layer made of a plastic layer.

6. The method as claimed in claim 4, wherein the at least one permeable layer are two layers respectively made of a plastic layer and a paper layer, wherein the foil layer is laminated between the plastic layer and the paper layer;

the stripping agent is 15~68% nitric acid; and

wherein a heating temperature range of the heating act is 40~70℃.

7. The method as claimed in claim 6, wherein the stripping agent is 68% nitric acid;

the heating temperature of the heating act is 60℃; and

a soaking time is 40-minute.

8. The method as claimed in claim 6, wherein the stripping agent is 34% nitric acid;

the heating temperature of the heating act is 65℃; and

a soaking time is 60-minute.

9. The method as claimed in claim 1, wherein the stripping agent further comprises acids selected from the group of acetic acid and phosphoric acid.

10. The method as claimed in claim 1, wherein the stripping agent is 30~34% nitric acid; and

a soaking time of the soaking act is 7-hour.